

## **REMARKS**

Applicants respectfully request that claims 2 and 8 be cancelled and that claims 3 and 4 be amended to depend from independent claim 9. Claim 9 recites all the features of claim 2, with the sole difference being the recitation of a plurality of “annular” projections.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 3-6, and 9-11 in condition for allowance. The proposed amendments of claims 3 and 4 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

### **Examiner Interview**

Applicants and Applicants' undersigned representative thank the Examiner for taking the time to discuss the claims of the application in an Examiner Interview on July 21, 2004. In the interview, the combination of U.S. Patent No. 5,499,448 to Tournier et al. (the '448 patent) in view of U.S. Patent No. 3,042,737 to Brumbach et al. was discussed as it relates to independent claim 9. It was agreed that the claim term “annular projections” is not taught in the Brumbach et al. patent. It was also agreed that the Examiner would reconsider the issue upon filing of this formal response.

### Rejections under 35 U.S.C. § 103

Claims 2-4 and 8-10 stand rejected under 35 U.S.C. § 103 as being unpatentable over the '448 patent in view of U.S. Patent No. 3,042,737 to the Brumbach et al. patent. Claims 5 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,408,743 to Tournier et al. (the '743 patent) in view of the Brumbach et al. patent. Claim 11 stands rejected under 35 U.S.C. § 103 as being unpatentable over the '448 patent in view of the Brumbach et al. patent and further in view of U.S. Patent No. 4,959,508 to McGrane.

Claims 2 and 8 are canceled and claims 3 and 4 are amended to depend from claim 9. Claim 9 is directed to a structure for mounting a terminal to a covered electric wire. The structure includes a terminal comprising a cylindrical wire end receiving portion and a cylindrical connecting portion for connecting to other equipment. An inner surface of the wire end receiving portion comprises a plurality of annular projections. The structure also includes a covered electric wire from which a leading end of a covering is removed to expose a leading end of an electric conductor. The wire end receiving portion receives the leading end of the exposed electric conductor of the covered electric wire and a part of the covering. Additionally, the wire end receiving portion is uniformly compressed around substantially the entire periphery thereof to be in close contact with the exposed electric conductor. Claim 5 recites many features similar to those of claim 9.

The '743 patent discloses a connecting part (10) having a hollowed out portion (10a) formed of a blind hole (20). An electric cable (12) is received in the blind hole

(20), and the connecting part (10) is fed into a die to reduce the diameter of the hollowed out portion (10a) around the electric cable (12).

The '448 patent discloses an end member (10) that receives an electric cable (12) into a rear connecting portion (10b) having a blind hole or bore (26). The electric cable includes a core (14) and sheath (16). The end member (10) is fed into a crimping or swaging tool comprising pliers (38) and a die (40), in order to mechanically connect the end member (10) to the cable (12).

The Brumbach et al. patent discloses a hose coupling system for a fluid carrying hose, the system including a ferrule or collar element (26) that is internally threaded as at (26a) for a gripping arrangement with the receiving end of a piece of tubing. the Brumbach et al. patent, column 2, line 72-column 3, line 3. In use, the ferrule member (26) is threaded onto the respective end of the tubing to grip the material of an outer sheath of the tubing. See the Brumbach et al. patent, column 3, lines 33-35.

However, neither the combination of the of the '743 patent and the Brumbach et al. patent nor the combination of the '448 patent and the Brumbach et al. patent establishes a *prima facie* case of obviousness rendering either claim 5 or claim 9 unpatentable because neither combination teaches or suggests all the recited features of claim 5 or 9. For example, neither teaches or suggests a structure for mounting a terminal to a covered electric wire including, among other things, a "plurality of annular projections." The Office Action separately states that the '448 patent and '743 patent do not disclose a plurality of annular projections. See Office Action, pages 3 & 4. For a teaching of projections, the Office Action relies upon the Brumbach et al. patent. The Brumbach et al. patent discloses a threaded ferrule member. However, a thread is not

a “plurality of annular projections.” To be annular, the projection forms a ring. See definition of “annular” at Merriam Webster Online dictionary, <http://www.m-w.com>, visited July 21, 2004. A thread is not annular because it doesn’t form a ring. Instead a thread is a spiral protuberance. Further, claims 5 and 9 recite a “plurality” of projections. The thread disclosed in the Brumbach et al. patent is not a plurality of projections because it is a single spiraling protuberance. A single protuberance cannot be a plurality of annular projections. Further, the angle of the thread in FIG. 5 appears to suggest that there is only one thread. Thus, the Brumbach et al. patent does not disclose a plurality of annular projections.

The Office Action states that although the Brumbach et al. patent discloses threads instead of the claimed plurality of annular projections, the rejection is maintained because the threads “are ringlike segments.” See Office Action, pages 7-8. However, as agreed at the Examiner Interview, the Brumbach et al. patent does not disclose annular projections. This is because the thread disclosed in the Brumbach et al. patent does not form “rings” and because a single spiral thread cannot be a plurality of rings. Therefore, the threaded ferrule disclosed in the Brumbach et al. patent cannot be a plurality of annular projections as used within the claims.

In addition, as suggested in the prior papers, neither the combination of the of the ’743 patent and the Brumbach et al. patent nor the combination of the ’448 patent and the Brumbach et al. patent establishes a *prima facie* case of obviousness rendering either of claim 5 or claim 9 unpatentable because there is no motivation in the art itself to combine the references in the manner suggested in the Office Action. The Office Action states that the motivation to combine would be to provide gripping arrangement

with the covered wire. See Office Action, pages 4 & 5. However, one skilled in the art would not be motivated to combine the references cited for such a purpose without the benefit of the teachings of the present application. Both the '743 patent and the '448 patent disclose that a wire may be connected through crimping or swaging of a flared connecting part to squeeze the wire in place. The Brumbach et al. patent discloses a ferrule with threads allowing it to be threaded onto the end of a fluid-carrying hose. One skilled in the art would not look to a system for a fluid-carrying hose to develop a system for connecting a wire to a wire terminal.

Further, one would not combine the crimping method taught in the '743 and '448 patents with the threaded method taught in the Brumbach et al. patent because the threads taught in the Brumbach et al. patent would be on the inner surface of the flare disclosed in the '743 and '448 patents, and therefore, would not engage or secure a hose or wire threaded into the ferrule until the ferrule is crimped or swaged. Because of this, the threads would not be able to serve any threading purpose. Therefore, using only the teachings in the art, one would not be motivated to include the threads taught in the Brumbach et al. patent with the connecting part taught in either the '743 patent or the '448 patent.

The Office Action states that motivation to combine a system for a fluid-carrying hose to develop a system for connecting a wire to a wire terminal is found because the Brumbach et al. patent discloses "projections 26a . . . used to provide a gripping engagement with a material of an outer sheath." However, any gripping engagement disclosed in the Brumbach et al. patent is for threading a fluid carrying hose into a ferrule. The '743 and '448 patents relate to an element for connecting to an electrical

cable. The Brumbach et al. patent still would not provide a motivation to combine its teachings with an electrical connector.

Furthermore, even if the combination of either of the '743 and '448 patents and the Brumbach et al. patent were to teach that all the aspects of the claimed invention were individually known in the art, this is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. See MPEP § 2143.01, *citing Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). In this case, neither combination of the '743 patent and the Brumbach et al. patent nor the combination of the '448 patent and the Brumbach et al. patent provides an objective reason for combining references. Accordingly, the combinations of the '743 and '448 patents with the Brumbach et al. patent fails to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection.

Claims 3, 4, 6, 10, and 11 depend from and add additional features to independent claims 5 and 9. Accordingly, these claims are allowable for the reasons set forth above.

#### Conclusion

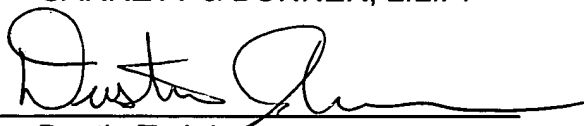
In view of the foregoing remarks, Applicants request the entry of this Amendment and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: July 23, 2004

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